

Draping a Fitted Cotehardie and Patterning a Body Double

Taran Destinger – Shire of Glyn Dwyfn, Principality of Summits, Kingdom of An Tir

Everyone looks good in a well fitted garment, but a good fit can be challenging to achieve. The first half of these instructions will guide you through the process of draping a pattern for what is perhaps the most versatile and iconic Medieval garment since the invention of the basic tunic – the fitted cotehardie!

The second half of the instructions will show you how to take your cotehardie pattern and use it to pattern a body double – a portable, inexpensive, and incredibly useful plush copy of yourself. A body double can be a great asset to garb construction as a draping form, model, or just to help you pin the hem up straight. These doubles are wonderful for A&S displays because they are durable, squishable, pinnable, and storable.

What is a Cotehardie?

Cotehardies are fitted garments with a simple cut which cover the entire torso. They were worn by both men and women in the fourteenth century. They can end at the hip (for young, fashionable men whose elders complain are showing off their underwear) or puddle on the floor (for wealthy noble women) and anywhere between. Men’s fashion throughout the century changed in length, sleeve styles, and accessories, but the basic shape remained relatively constant. Women’s styles changed in neckline and silhouette as well as the changes we see in men’s fashion. The later into the fourteenth century we go, the more pronounced the lady’s bust becomes. As dealing with ample bosoms is a challenge many face I’m going to lead you through making a cotehardie pattern that can support the bust (which is suited for a later - 1370 and on - cotehardie). If you don’t need (or want) the bust support, skip the “Bust Support” section.



In this French illumination from 1350 entitled “Vows of The Peacock” we can see a variety of cotehardies.

Materials Needed:

- ✧ **Striped/plaid cloth with NO stretch:** I like to use old bed sheets
- ✧ **Good quality safety pins:** don't waste your time and money on cheap aluminum pins
- ✧ **A pair of small, sturdy, sharp, maneuverable scissors:** I love Ginger's 5" craft scissors
- ✧ **A cloth measure tape and a yard stick**
- ✧ **Fabric Weights**
- ✧ **Two markers of different colors:** I use a sharpie and a bright contrasting colored marker.
- ✧ **Pattern paper:** brown packing paper, sturdy gift wrap, or whatever else you have is fine.
- ✧ **Pencil and pen**
- ✧ **Paper Scissors:** if you don't know the difference, you will learn it!
- ✧ **Optional supplies for tracing:** Tracing/pounce wheel and Mat/cork board/ cardboard

Preparing to Drape a Pattern

I use old bed sheets as mockups and draping fabric because they are inexpensive, stable, and easy to find. If it's too ugly to use for anything, it's perfect for a mockup. I have recommended the use of striped fabric because it helps to keep your garment on grain. If you keep the stripes running vertically while you pin, you will have a balanced seam. If they veer off, your seam is pulling off grain.

The size of the piece of fabric you need depends on the size of the person being draped. Measure the circumference of the widest part of



the torso. Divide this in half and add 6". That is the width you need. Measure from the mid-thigh, up over the shoulder, and back down to the mid thigh. That is the length you need. The stripes of your fabric should run lengthwise.

Cut a 6" diameter circle from the center of your fabric. This will be your neck hole. Cut a 6" slit down the front side of your fabric so the model can get it on and off. Do not cut through the back layer.

Make the model as comfortable as possible during the fitting. Keep the temperature reasonable for someone clothed in a bed sheet. Encourage them to use the privy before you start! If you are following the instructions for making a bust-supportive cote, have a reasonably comfortable place for the model to lie down.

The model needs to wear nothing between themselves and the mockup that they do not plan to wear under the finished garment. It is a good idea to have no upper-body coverings on for this process as they can distort the fit, get caught up in pins, and may get snipped. If the model has long hair ask them to pull it back in a ponytail or put it up while you work.

Make sure you have all the things you need on hand before you begin. Have your pins, scissors, marker, and measuring devices nearby.

Fitting Tips

These tips will save you time, both in draping and in fitting mockups or real garments.

Pin neatly! The biggest and most frequent mistake I see in fittings is sloppy pinning. If your pinned seam has puckers on one side and not the other, it's likely the puckered side is longer and will not sew cleanly to the other side. It's best to address this as soon as you notice the problem. Even if it means unpinning and re-pinning the whole seam, do it. It will save you a lot of headache later.

All things being equal, you should adjust the shoulders first. Everything hangs from the high point shoulder and a poorly angled shoulder seam can cause a lot of problems. Likewise, correcting the angle of your shoulder seam can fix a lot of problems.

My favorite trick is how to spot the problem areas. Drag lines will point at the problem. That's it. Once you know that your fabric is making handy little arrows to show you exactly where it's too tight, life will be easier.



Draping the Pattern

The first step is to make a rough side seam. Don't get too close to the armpit or worry about taking up too much bulk. Your goal in this step is just to make the front and back stay in place.

Keep it as even as possible with the stripes are running vertically.

It will only take a few pins at each side to hold it in place. I stopped right below the bust to allow plenty of room for the giant shoulder flaps that we will be dealing with soon.



The next step is shoulder seams. Try to keep them running perfectly from the High Point Shoulder (at the side of the neck base) to the Shoulder Point (that bone that sticks out at the place where your arm meets your body).

Make sure your shoulder pins are not pulling the stripes to one side.

They should make the neckline fit snugly at front and back if it did not already.

Do not pin past the Shoulder Point. We will be cutting that excess cloth off later.



Now pin up the center front from the end of the slit down. Pin the center back next.. Be sure to keep the stripes going vertically. Notice how the left side of the back has nice vertical stripes, but the right side is slightly angled? We will have to fix that later.



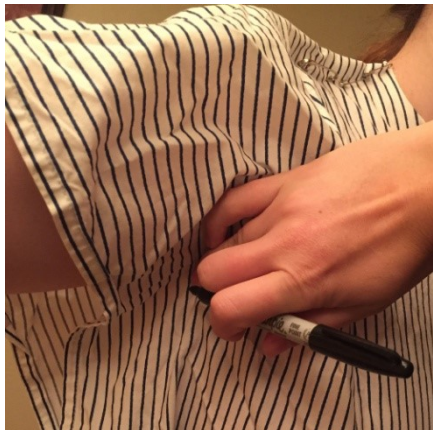
Now it's time to reassess the shoulder seams. There are a lot of wrinkles on the shoulders that we don't want in our finished garment. We need to take special care to pin out any excess fabric at the shoulder of a bust-supportive gown, as the fit of the shoulders is part of the support.

Let's look at the fit we have so far. The left side of the front looks alright, but the stripes on the right side are angling out at the top. This tells us the front shoulder needs to move in (toward the neck) on that side. On the back, both sides have a pretty sizable horizontal flap of extra material right in the middle of the armseye which vanishes at the fullest point of the shoulder blades. This tells us we need to take up more fabric on the outside of the shoulder in back, but the fit next to the neck is good.

We also want to keep our shoulder seams straight and following the tops of the shoulders. It will make your pattern prettier and more fabric efficient if the shoulder seam is balanced. It's totally fine if you have to re-pin the entire shoulder. The bustier your model, the more likely that is to happen.

Now we get into the part I find the trickiest. We are now going to trim away that extra fabric to make armholes.

The first step is to find the model's shoulder point- the knobby little bone that sticks out. Mark it with your sharpie and move any pins that are on the outside of that mark.



Now, mark the under arm point by having your model hold their arms straight out. Place your finger snugly up under their arm and mark the fabric on the underside of your finger. Ideally, this should put the mark 1/2" down from the armpit.



The middle of the armscye is found by having the model put their arms down comfortably at their sides. Trace the crease between arm and body as far as you can. Do this on front and back.



Connect all of these marks with the smoothest line you can make. Once it is drawn in neatly, carefully trim away the extra fabric from shoulder to underarm. Inspect the cut line to be sure it looks smooth and symmetrical. Correct if needed. Have your model move their arms around and tell you if it's too tight anywhere. Some people are more sensitive to things touching their arms than others, so bear that in mind before cutting off too much. If you must remove any more fabric, do so in small increments (1/8" or less) to avoid cutting too much. A lower, wider armhole takes a very special sort of sleeve and is not what we need to make our body double pattern, so you should aim for a close-fitting armhole.



As you can see, there is still a lot of loose cloth under the arm. Now it's time to pin up the rest of the sideseam. Just as before we want to keep our stripes running vertically so we know we're taking equally from both sides.

Once the sideseams are secure, it's time to revisit the front and back seams. Aim for a smooth appearance with as few wrinkles as possible. We want to get this as close to skin as we can safely.

Continue to adjust any area that appears to be unbalanced or causing drag lines until you have achieved a smooth fit. This is easier to achieve with streamlined bodies than curvy ones. For a bust supportive gown make extra sure you get your seams snug at the ribs/underbust as this is what supports the bust, just like a bra band.

This is the least flattering part of your fitting. If you look in the mirror and want to cry,



fear not! The pins, unfortunately, enhance and emphasize every curve. In a light colored sheet, this effect is even worse. In a real garment with sewn seams, this effect will not be present. Also, the weight of the added skirt will smooth the line vertically making a lot cleaner shape. Be brave and carry on. You will look fantastic in your fitted cotehardie, no matter your body type!

Now is the time to double check what you've done. How is mobility in the arms? Check your seams. Are the seam lines straight? Are your stripes all running perpendicular to the floor?

Bust Support

This section is optional. If you don't want or need bust support, skip to the next page.



Ask your model to lie down. Help her if needed (sometimes pins try to burst or old sheets may tear when the body bends). Once she is comfortable, have her reach into the center front neck slit and arrange her anatomy how she would like it to remain. Once this is done, snug up and re-pin the center front. I like to leave the old pins in place while I add the new tighter pins. Continue pinning all the way up the center front to the neckline.



When everything looks smooth and secure, help your model stand up. You may need to give her a minute to marvel at the support; many find it quite surprising.



Final Touches

If you haven't yet pinned up the center front to the neckline, do so now. How does the shape of the neckline fit? We want this as close as possible to the natural neck base, even if the model will never wear a garment with a neckline there. Does it fall in the right place? If not, correct it. Draw in the shape before cutting. Now is a good time to



draw alternative necklines. I like to draw a square neckline, a scoop neckline, a comfortable modest neckline and the lowest possible neckline I might want to use. You can transfer these to your pattern later.

Have your model use their fingers to indicate their bust points. Mark with a sharpie. We will need this for making the body double princess seams.

Now we will draw a line parallel to floor on the mockup. This line is best drawn before the body curves inward below the waist, which often places it around the high hip level. From this point down, we will not be following the shape of the body. Measure from this line down to the floor and note that measurement on your mockup. I often take note of other lengths I might wish to use, such as thigh, knee and calf-length. Once you have this measurement, though, you can figure the rest out by measuring up your legs from the ground and subtracting it from your line to floor measurement.

The final step is using your marker to trace the seam lines made by your pins on any seams you need to unpin to free the model. Be sure to get the front piece and the back piece. Then release your model from those pins to change back into their clothes.



Upper left: Taymouth Hours 1325-40

Upper right: Romance of Alexander 1365, France

Lower left: 1365, France

Lower right: 14th century France, from a book of poems



Transferring a Draped Pattern to Paper

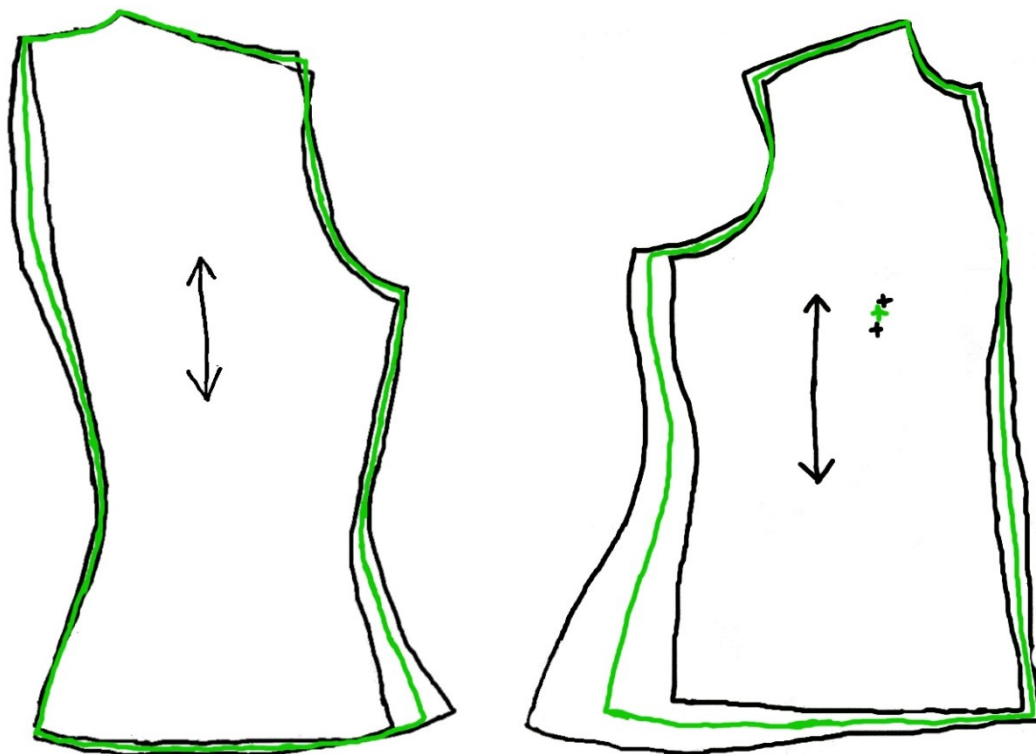
Our first step is to finish tracing all the pinned seams. Remove the pins and check to make sure you didn't miss any markings. Remove the pins. If your pieces are terribly wrinkly, you may want to iron them, otherwise we are ready to make this into a real pattern.

Look over your pieces. If there are any strange jagged bits, smooth them with the sharpie. Once your outline is clear, cut on that line. Use the line we drew parallel to the floor as the bottom of your pieces and leave your neckline and armhole as they are.

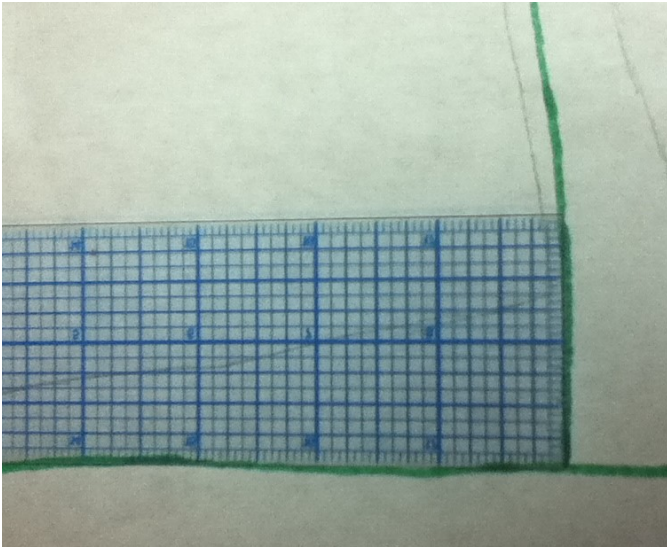
Unless you are drastically asymmetrical, you should use the average of the modifications on the right and left instead of making a separate right and left pattern. I am going to assume for the purposes of this class that the model is reasonably symmetrical. Should you want to discuss patterning for people for whom this is not the case, please look me up on facebook and I will be happy to help.

Get a fresh piece of paper large enough for your front piece and back piece side by side. Lay out your front piece, weigh it down with fabric weights, and carefully trace the perimeter with a pencil. Transfer the bust point and any alternate neckline markings. Ponce wheels are a useful tool for marking lines through the fabric onto paper. Get the spiky sharp kind because the pizza cutter style just destroys your paper. You can also do the same thing with pins and cardboard if you have no ponce wheel; just perforate the line so you can see it on the paper. Now take the other front piece and lay it on top, lining it up as well as you can. If it's very far off, try to get the neckline to match up and get the rest of it as close as possible while keeping the stripes pointing the same direction as the other piece. Use your weights to hold it in place while you trace around this piece and transfer the bust point and necklines. Do the same with the back pieces. Be sure to write on one of these pieces your line to floor measurement.

It's time to true our pattern now. This isn't as scary as it sounds. All we need to do is draw a line exactly halfway between the ones made by each half of our pattern. If one side has lines that look funny, though, you can veer toward the more reasonable side instead of the average, as long as you do the same on both sides of that seam. Do this in pen so it contrasts with your pencil tracings.



At left: This is the pattern draped in the photos scaled down. You can see the differences in the right and left side of each piece (indicated by the black lines) that resulted from the crooked lines. The green lines indicate the truing of the pattern by averaging the lines and bust point.



Check the angles of all your corners to make sure they are 90° for at least $\frac{1}{2}$ " to keep your seams smooth. Use the marker if you need to correct any strange angles or wobbles.

Make sure your seams are all the right length to sew together (the back shoulder seam is allowed to be $\frac{1}{4}$ " larger than the front) by walking the pieces. Use the opportunity to add in notches to make it easier to sew together. Double notches mark the back, a single notch marks the front. I like to have at least one notch on every seam longer than 12", and another one for every 2' of seam after that.

Now look over all of your curves to make sure they're smooth. You don't want dips, points, or flat spots on your curves. If corrections need to be made, do them in sharpie. Mark the grain line, which runs the direction of the stripes, as a double-headed arrow, as in the illustrations on the previous page.

You have now drawn out the *finished* size of all your pieces; you will need to cut them larger to make a garment. I personally never add seam allowance to my patterns as it hinders the pattern correction and alteration process. I also find that different fabrics (and different people) need different seam allowances, so chances are I would end up having to change it anyway. If you feel you need the seam allowance added you can trace a new copy later.

You should include on every pattern piece the following annotations:

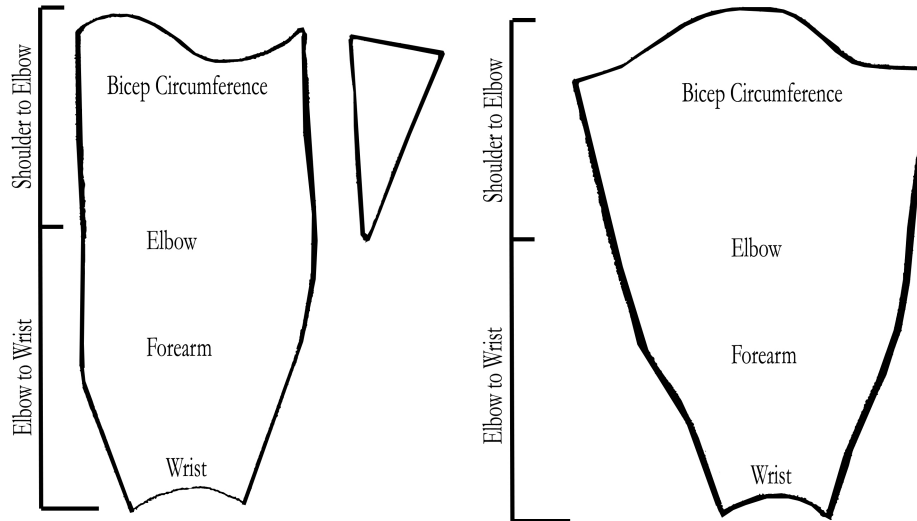
- a. Pattern name (ie. "Onora's cotehardie").
- b. Piece name (ie. back).
- c. How many? (ie. Cut 2).
- d. Seam Allowance (if any) included. NSA stands for "no seam allowance added".

I like to keep my patterns in manila envelopes and write the date, the yardage needed for the garment, the time it took to sew it, and what trims it needs on the outside of my pattern envelope. A sketch of the finished garment is useful as well.



Patterning a Sleeve

Cotehardie sleeves come in a variety of styles. They can have long buttoned sleeves which end at the wrist or cover the back of the hands. They can have short sleeves with tippets or pin-on lower sleeves. There are many options. I will provide instructions for a basic fitted sleeve, but don't let that limit you!



The sleeve illustrated on the left is a very fabric efficient sleeve that's a bit tricky to pattern. On the right we see a modern sleeve. I prefer the sleeve on the left not just for fabric usage, but because it places the seam down the back of the arm where the buttons should lie and it also gives a good amount of bias stretch where it's needed most.

You need to take a few measurements to start out with either option. Take all measurements with the muscles flexed and elbow bent. Add $\frac{1}{2}$ " of ease. Draft the pieces to be the same shape as the sketch, paying special attention to the proportion of the sleeve head. The sketch shows you what measurements to put where. The difference between the sleeve cap and the underarm should be 2-3" on most sleeves. The tricky part is getting the sleeves to match up to the armseye. This is the beauty of the gusseted sleeve, though. Whatever the difference between your armseye and your bicep, that is the width of your gusset. Cut it a little large just in case; you can trim it off more easily than you can add in more cloth.

If you need more detailed instructions on drafting a sleeve pattern, see my "Crash Course in Pattern Making" handout which you can find here: <http://tinyurl.com/Taran-Class-Handouts>



Modifying Your Pattern to Make a Body Double Pattern

Trace all your pattern pieces on fresh paper (lightly, in pencil). Make sure to annotate the new piece just as you did for your cotehardie.

Our first modification is to raise the neck 1/2" all the way around. Do this by using a ruler to mark out points 1/2" above the current neck edge of your pattern. Connect these dots to each other and the shoulder and center front/center back edges. Use the double slash to mark out old lines. Go over it with a pen if needed.

Next, we need a neck/collar piece. I have included a template in this handout that is the correct shape. Your finished collar should measure the same as your neck in width and height. You will need a circle with the same circumference as your neck to cap the collar/neck of the body double.

The armscye of your pattern needs to be raised 1/2" (remember how we drew our line just under the armpit? Well, we have to put it back for the body double. Blend this line smoothly into existing curve. Use the double slash to mark out old lines. Go over it with a pen if needed.

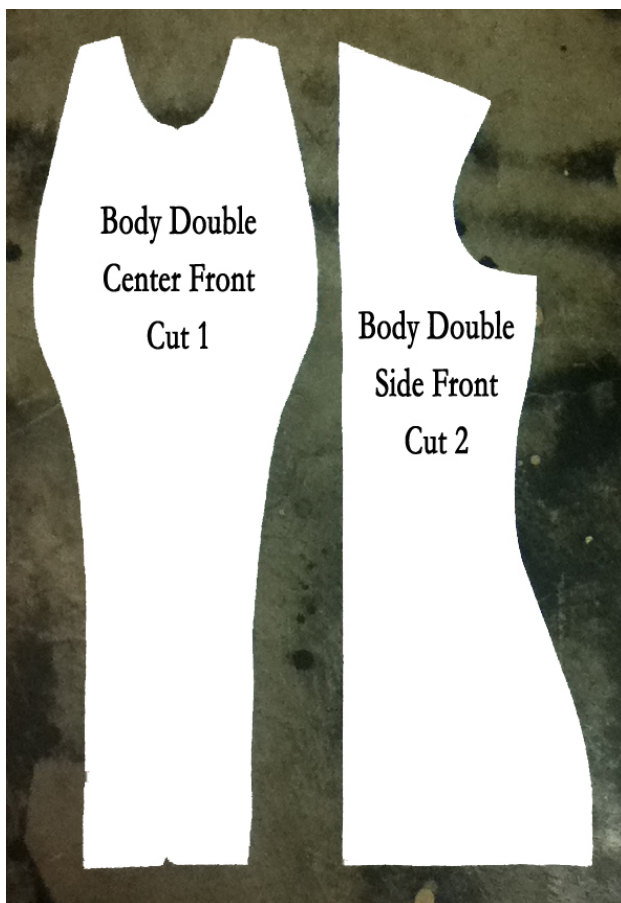
I have also included a template for the sleeve/arm piece. This piece should be as wide as 1/2 of your bicep circumference. Try to keep the proportions even between underarm and sleeve cap as you stretch it to fit. Check to make sure that it measures the same as your new armscye. You will also need a circle with the same circumference as your bicep to cap the sleeve/arm of the body double.

Now, we're going to add some length to the bottom. The exact amount is up to you, but I would recommend something between 2" and 8".

If you (and your pattern) have a prominent bust, you will need to convert your pattern to princess seams. I confess not knowing at what point this modification becomes necessary, I simply know that my

first prototype had an exciting fin-like chest that was not at all what I was hoping for. In order to break up your pattern into princess seams we will first draw a straight vertical line that intersects with the bust point marking. Cut the pattern apart along this line. Label the piece that has the armscye and sideseam the side front. The center front piece will need more work.

We need to move the curve that is currently at the center over to the side. Trace it out on a new piece of paper, but keep the old piece handy. Walk the side front piece up the curved edge of the new center front piece. When you get to the end at the neck edge use a pen to extrapolate the line, using the side front piece as a guide, until the length is correct. Mark the new end point of this line clearly, and put a double slash through the old neck line. It is part of your new shoulder seam. Take the old front piece and flip it over so that its highest point and the new piece's highest point are aligned. Angle the piece from here until it lines up as much as possible with the new piece. Trace the neckline of the old piece onto the new. *(At left: my body double front pattern pieces)*



Lay the side front and center front next to each other with the side front seams aligned. If the shoulder line dips or peaks, correct it now. Now look over all of your curves to make sure they're smooth. You don't want dips, points, or flat spots on your curves. Make sure all your trued lines are clear (sharpies!) before you cut your pattern.

The next piece to pattern is the base. For this we need an oval that is as wide and as deep as your hips. This is best measured by leaning against a wall and using a yardstick. It doesn't have to be a perfect measurement. Pattern this piece folded in half (along the front-back line) so you don't have to try and draw symmetrically. Once you have a reasonable rectangle, walk your front and back pieces along it to see if they fit. If not, adjust the body pieces first. If your body pieces are too small, add to the back pieces. If too large, subtract from the front. Mark the sideseam with a notch. Use the CF-CB line and the sideseam notch to find the "spine". Mark this point. Centered over it, draw a circle with a diameter of 3". Cut this circle from the pattern but NOT from your fabric-just mark it clearly for now.

You will also need a 3" diameter circle patterned as the top of the shaft. The shaft itself is a 9" wide rectangle the same length as your pattern's center front.

Below you can see the front and back view of a completed body double. This one is stuffed with standard fiberfill pillow stuffing which has not quite relaxed into its shape.



Body Double Piece List

- ✧ Center front – cut 1 on fold OR cut 2 if CF seam is desired
- ✧ Side front – cut 2
- ✧ Back – cut 2
- ✧ Sleeve/arm – cut 4
- ✧ Neck/collar – cut 1
- ✧ Arm cap – cut 2
- ✧ Base – cut 2
- ✧ Shaft – cut 1
- ✧ Shaft top – cut 1
- ✧ Neck cap – cut 2
- ✧ Head center front – cut 1
- ✧ Head side front – cut 2
- ✧ Head back – cut 3

Materials Needed

- ✧ Sturdy fabric
- ✧ 18” two-stop zipper
- ✧ 12” separating zipper (optional)
- ✧ 1’ of narrow webbing or equivalent
- ✧ Cardboard
- ✧ Stuffing
- ✧ 3’ of 2” PVC pipe with end cap (optional)

At right you can see the same body double dressed in a cotehardie made from the pattern it was based on.



Construction Notes for the Body Double

- ✧ I recommend a sturdy fabric with little or no stretch for this project. Canvas, heavy muslin, cotton twill, or denim should work fine. I used a fleece-backed fabric for mine to soften the shape and help hide the inevitable lumps.
- ✧ While you can stuff your double with whatever you like, I found that using fabric scraps weighed it down enough to distort my shoulder seams after a while sitting on its stand(a little re-fluffing and it was good as new, but I feel it's still worth noting). The fiberfill has worked nicely so far.
- ✧ I patterned the shaft to fit snugly but comfortably around a piece of 2" PVC pipe (with an end cap). I use a length of pipe inside the shaft to protect the fabric from wear.
- ✧ My favorite type of stand is old medical IV poles because they're sturdy, stable, adjustable, and have wheels. You could build a stand out of just about anything, though.
- ✧ I have included a template here which will allow you to make a head for your double. If you want this head removable, you will need to set a 12" separating zipper into the head seam and the neck seam. The head also requires a circle the same size as your neck cap set into the bottom.
- ✧ All of this is just a guideline. If you think you can improve the design, by all means, make it your own! I intend to continue refining this process and the pattern for my own body double until I am satisfied that it's as good as it can be. Don't be afraid to deviate from my instructions if you think you see a better way. There is no right or wrong answer for this project.



Body Double Construction Instructions

- ✧ Cut all pieces from your fabric. Don't forget to add seam allowance. I prefer 3/8" seam allowances, but use whatever is comfortable for you to sew. I made my base and shaft pieces out of a different material because they won't be visible when I use my double as a display. If your fabric frays, you may want to serge or zigzag the edges.
- ✧ Cut a cardboard base slightly smaller than the finished size of your base, and cut the shaft hole slightly larger than 3".
- ✧ When constructing the base it is a good idea to double stitch all seams for durability. Sew the shaft piece into a long tube. Set the cap piece into one end. Line up your two base pieces and baste around the shaft placement circle. Sew the uncapped end of the shaft to the circle on the base. Cut out the circle, then flip your pieces right side out (your shaft will look inside out, remember the inside of the tube is what you'll see from outside). Shove one layer of the base fabric through the hole in the cardboard, smooth pieces and line up notches. Baste layers together.
- ✧ Set an 18" two-stop zipper into the center back seam centered between the neckline and the hem. Finish the rest of the seam and topstitch if desired.
- ✧ Sew side front and center front pieces together. Attach to the back piece at the shoulders.
- ✧ Sew the arm pieces together, set in the arm cap. Sew the neck together and set in the neck cap. If making a removable head, set one side of the 12" separating zipper into the seam between neck and neck cap. If making an attached head, construct the head and set into neck instead of cap.
- ✧ Set the neck into the body. Cut four little webbing tabs (2-3" long) to keep the shaft centered within the neck hole. Anchor these to the edges of the neck seam at CF, CB, and Shoulder seams. Later, they can be tacked to the shaft.
- ✧ Sew up the sideseams. Set in both arms. Open the center back zipper. Set in the base, being sure to line up all your notches. Flip the thing right side out.
- ✧ Thoroughly tack the webbing anchor tabs to the shaft (be sure not to let it twist!). They should hold the shaft perfectly centered without slack or pulling.
- ✧ Assemble the front, side, and back pieces of the head. I chose to leave my head open along the neck/chin seam to flip it right side out and stuff it, though I think it would be easier to leave an opening in the back of the head for this purpose. For the removable head, baste the other side of the 12" separating zipper to the head/neck cap. Test it to make sure it zips on/off correctly. Once satisfied, set this cap into the head/neck seam. Flip your head right side out.
- ✧ Stuff your double. Sew the head opening up. Smooth out the stuffing and you're done!

Further Resources

Any updates to this handout, and all of my other detailed handouts can be found here:

<http://tinyurl.com/Taran-Class-Handouts>

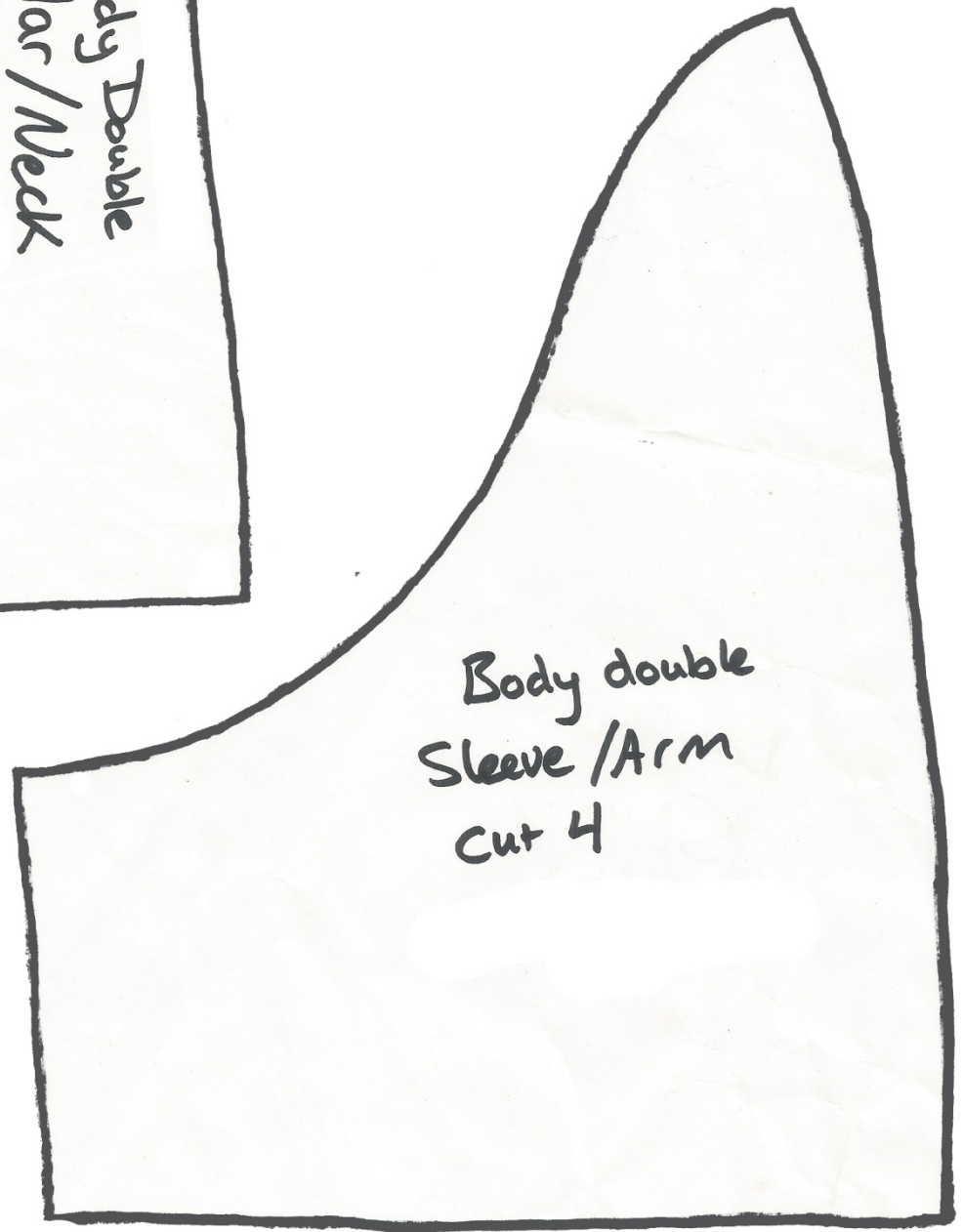
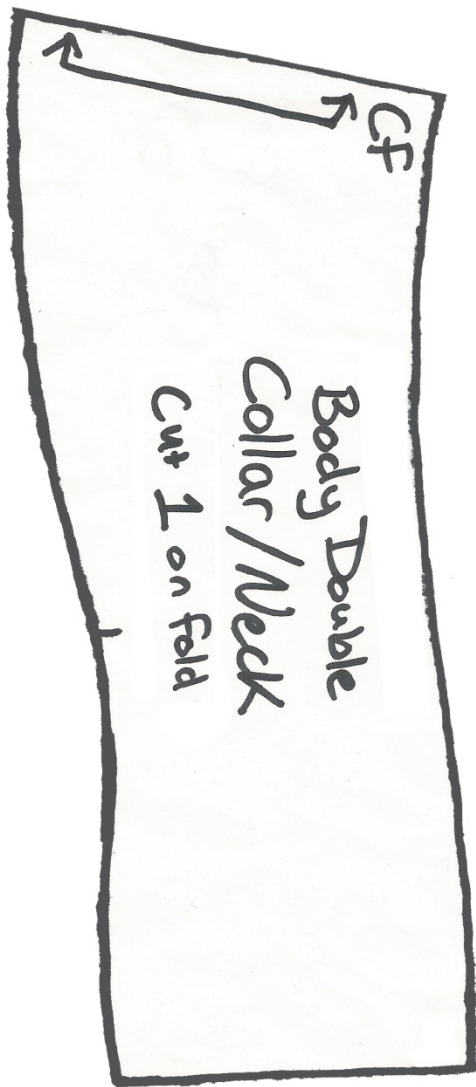
Some useful websites I have found that discuss the Cotehardie in detail are these:

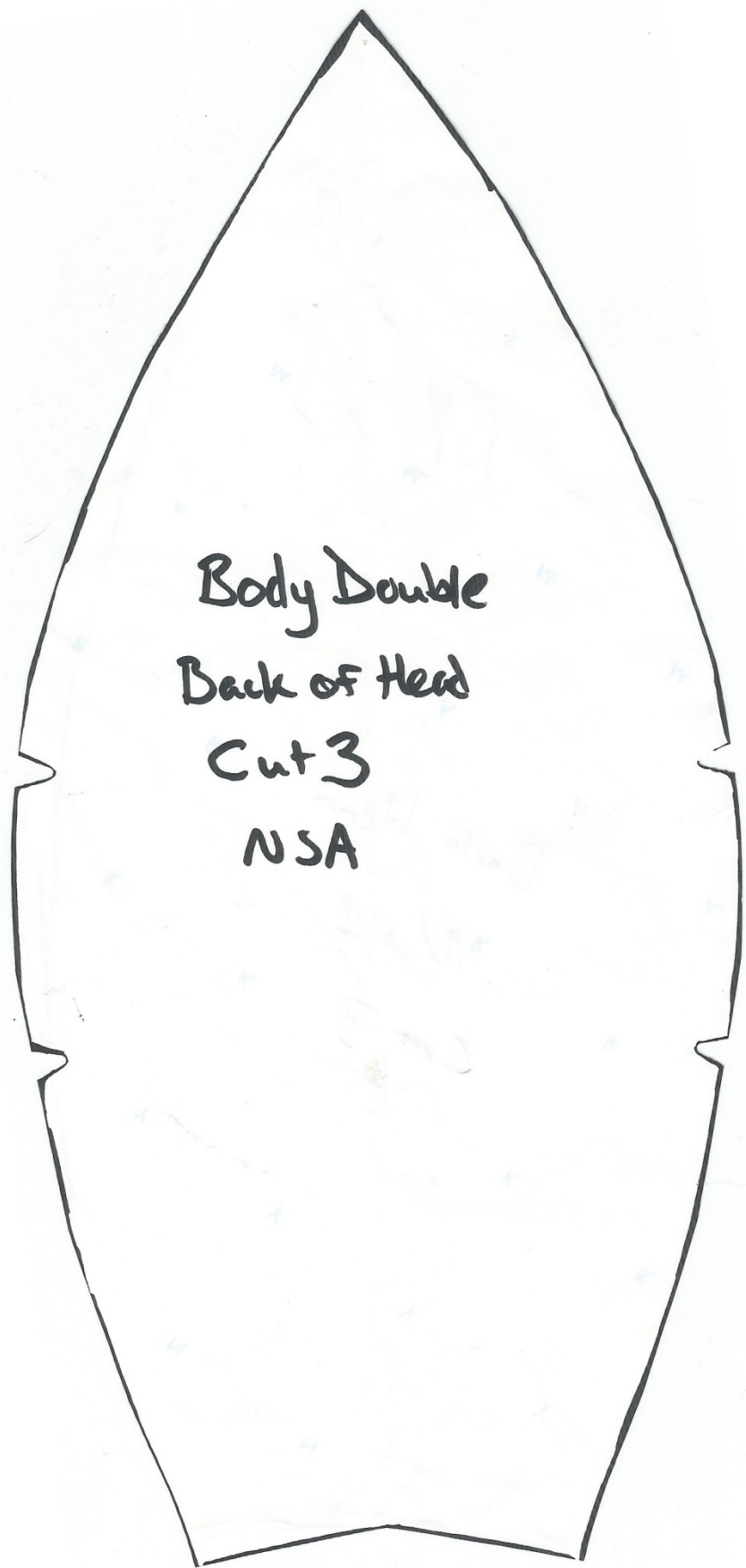
<http://www.florilegium.org/?http%3A//www.florilegium.org/files/CLOTHING/Cotehardies-art.html>

<http://www.polkadotpanther.com/resources/research-and-tutorials/gothic-fitted-gown-wardrobe-layers>

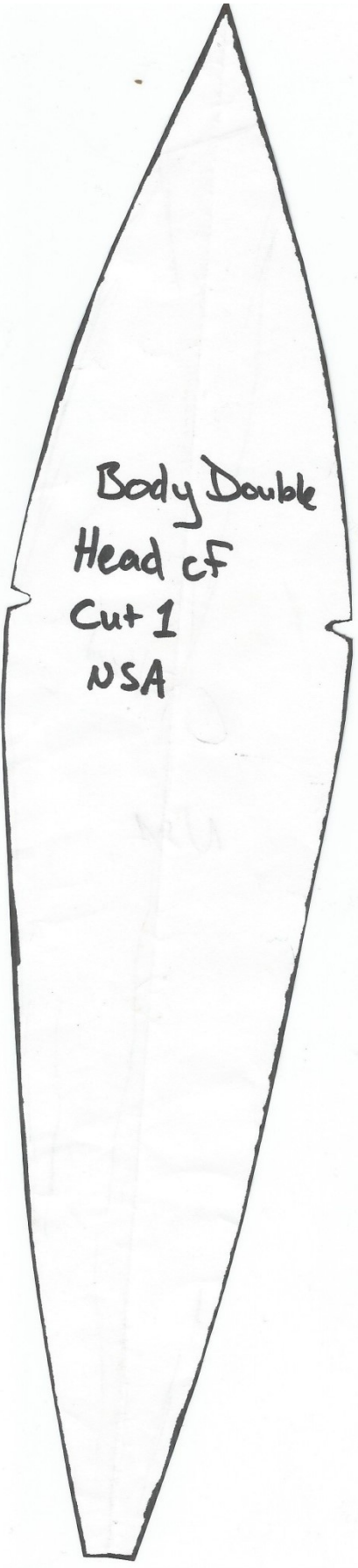
If you have questions, need help with a tricky pattern, or would like to suggest a revision to this handout the best way to contact me is through FaceBook: Taran Destingr Mac Tarl'a



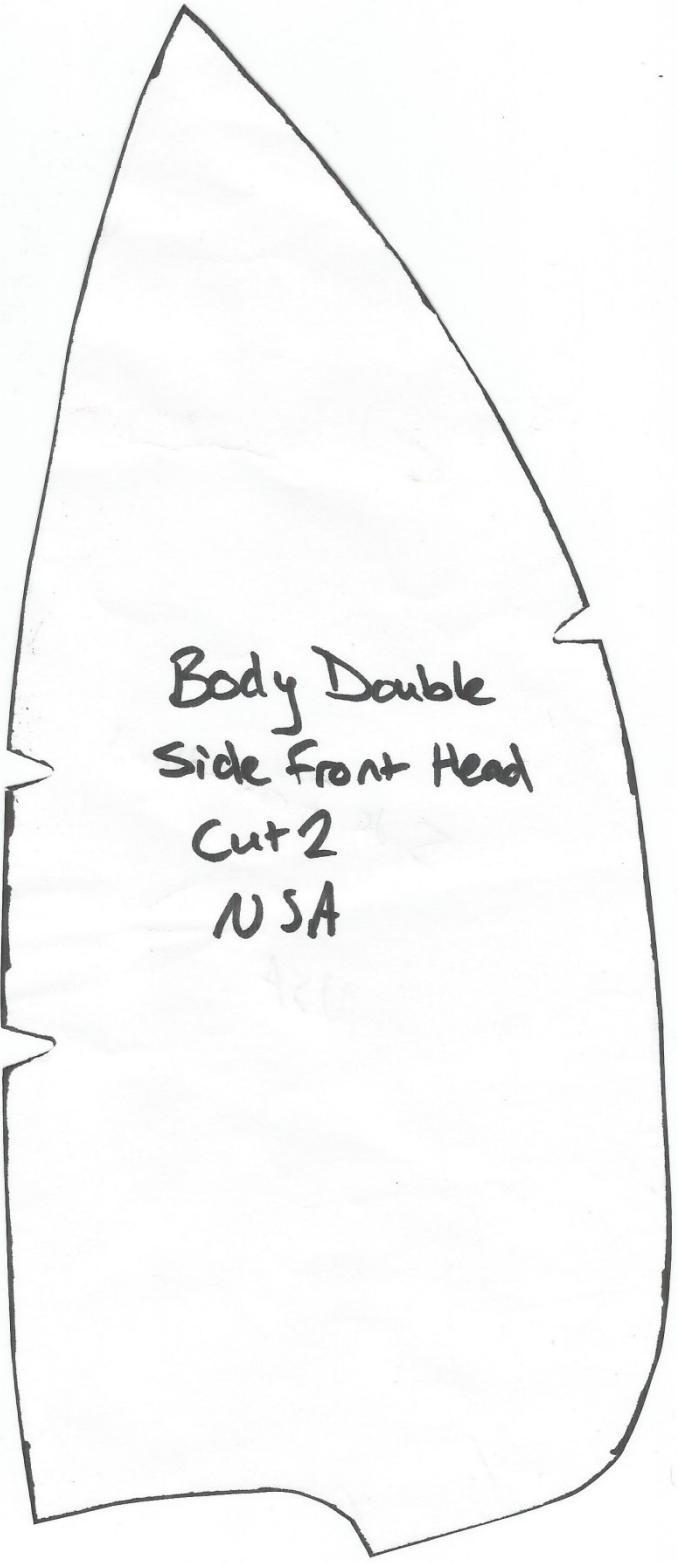




Body Double
Back of Head
Cut 3
NSA



Body Double
Head cF
Cut 1
NSA



Body Double
Side Front Head
Cut 2
NSA